REMARKS/ARGUMENTS

Introduction

Claims 1-32 were pending in the application. The examiner rejected claims 1-32. Applicant has amended claims 1, 8, 10, 12, 16-17, 19, 21, 23, 27, 30 and 32. Thus, claims 1-32 are pending in the application.

Examiner Request for Comment upon and Submission of Missing Information Disclosure Statements

The examiner has requested applicant to comment upon the Information Disclosure Statements submitted in this application and to submit any Information Disclosure Statements and their PTO 1449s that may be missing from the Patent Office file. Specifically, the examiner pointed out an inconsistency in the Patent Office file for this application. The examiner observed that the Patent Office folder jacket indicates that three Information Disclosure Statements have been submitted in the application. However, the examiner found only two Form PTO 1449s actually present in the Patent Office file. The date of one of the PTO 1449s matches the date of one of the Information Disclosure Statements identified on the file jacket, but the date of the other PTO 1449 does not match the date of either of the other Information Disclosure Statements identified on the file jacket. The examiner has requested that the applicant comment upon these inconsistencies, and that the applicant submit any missing Information Disclosure Statements and their PTO 1449s.

Applicant submits copies of the following two Information Disclosure Statements, their PTO-1449s and references:

> Paper No. 4, dated March 30, 2001, and received by the USPTO on April 3, 2001
>
> Paper No. 5, dated June 12, 2001, and received by the USPTO on June 18, 2001

Applicant would appreciate the Examiner initialing and returning the Form PTO-1449s, indicating that the information has been considered and made of record herein.

Applicant also submits a copy of the Information Disclosure Statement dated November 26, 2001, and received by the USPTO on December 31, 2001, and a copy of the PTO-1449 initialed by the examiner. Since the examiner initialed the PTO-1449, we did not provide copies of the references. If you would like Applicant to provide copies of the references, please let us know.

sf-1699671

Claim Rejections - 35 USC 103

The examiner rejected claims 1-32 under 35 USC 103 as being unpatentable over Annevelink (USP 5,448,727) in view of Martin et al. (EP 0955761). The examiner asserted as to claim 1 that Annevelink teaches partitioning a plurality of objects into a plurality of domains and (inherently) creating a list (which is to contain the information for properly accessing and otherwise manipulating the data that a domain contains). The examiner stated that Martin teaches an access control list, (for use in an access to a domain), formed with access control rights for different users/members and/or bodies. The examiner asserted that it would have been obvious for one of ordinary skill in the art at the time the invention was made to form a specific security list as that of Martin for Avennelink's partitioned objects in domains. The examiner asserted that a skilled person would have been motivated to do such forming because Martin teaches using such a list to control an access to his objects in his domains and because Annevelink teaches objects in domains which are to be properly accessed.

Applicant respectfully traverses the rejection of claim 1 as amended, which recites the following.

> 1.   A method for managing security on a business application management platform implemented on a computer, comprising the steps of:
>   partitioning a plurality of business objects into a hierarchy of domains; and
>   creating a security list configured to grant a member the right to perform a security operation on a business object located in said hierarchy of domains, comprising the steps of:
>   adding said security operation to said security list;
>   applying said security operation to a given domain and to each child domain of the given domain; and
>   adding said member to said security list.

Support for the present amendment of claim 1 is found in the specification as originally filed, which states the following.

> Domains are the Platform's partitioning mechanism for business objects. Domains allow users to define a hierarchical structure that models their organization or business, for example, based on geography or division. For example, the following simple

> example shows a three-domain organization, with a root "World"
> domain and two child "US" and "Europe" domains. [See drawing in
> body of patent application specification illustrating this hierarchical
> domain structure.]
>
> All business objects are assigned a specific domain and belong
> to that domain. In turn, security privileges are assigned on specific
> domains. The domain hierarchy is automatically enforced during
> security checks. This means that users who have access to a domain
> can access the objects in that domain, and that users who have access
> to ancestors of a given domain also have access to objects in that
> domain. (Emphasis added.)

See patent application specification at page 71, line 15–page 72, line 10.

Additional support is provided by the domain table structure of "fgt_domain" (Table 6),

which is the domain table structure of one embodiment. The fgt_domain table includes "Parent_id"

as one of its column entries. See patent application specification at page 79, lines 23-30. Thus, the

specification teaches that a hierarchy of domains can be built into the domain structure in

accordance with a present embodiment.

Still further support is provided by the explanation of an example SQL used to load

privileges. See patent application specification at page 83, line 31–page 85, line 14. Privilege is a

set of one or more security operations. See patent application specification at page 70, lines 26–27.

More specifically, in an example, a table "tpt_dummy_flat_tree" stores parent/child relationships for

all domains in the system. This allows the example SQL to include a join that obtains privileges for

both a specified domain and all of its child domains. The SQL checks the value of a "privs" field

and forms a new union of bitmaps that is a union of bitmap fields for the specified field and all of its

ancestors. See patent application specification at page 84, line 51–page 85, line 14. Thus, the

patent specification teaches applying a security operation to both a parent domain and its child

domain.

Neither Martin, nor Avennelink nor any combination thereof teaches or suggests the method

of claim 1 as amended. More specifically, neither of these references nor their combination teaches

or suggests the following limitations of claim 1,

partitioning a plurality of business objects into a hierarchy of
domains;...

applying said security operation to a given domain and
to each child domain of the given domain;

Martin teaches,

The directory structure comprises, for example, a tree-shaped
hierarchy 2 of nodes 3, 4 etc leading from a root node 3 to a plurality
of entries 5 forming the leaves of the hierarchy. Within the hierarchy,
there are defined domains, for example domain A5 and domain B6.

Associated with a domain, there is defined an Access Control
List (ACL). The ACLs define access control rights for different users
and or bodies. The <u>ACL for a given domain is associated with the
highest *node within the domain* and defines that access control rights
for the domain</u>. (Emphasis added.)

See Martin at page 3, lines 45-50.

Thus, Martin does not teach or suggest either a hierarchy of domains or applying a security
operation to a parent domain. Rather, Martin merely teaches a hierarchy of *nodes within a domain*.

Annevelink teaches,

...a new technique for logically and physically clustering tuples of
data in a database. The technique...is based on the partioning
(declustering) of a set of relations into smaller so-called local relations
and reclustering the local relations into constructs referred to herein as
domains. A domain as defined herein is self-contained, i.e., a domain
contains the information for properly accessing and otherwise
manipulating the data it contains. This is achieved by properly
annotating and declustering the system data. <u>Domains thus provide a
way of partioning a database into a number of disjoint datasets</u> so as
to allow the efficient transfer of parts of the database across process
and machine boundaries. (Emphasis added.)

See Annevelink at column 6, lines 1-17.

Annevelink also teaches,

...the most important criteria to determine the domain of an object
will be to balance increased granularity, which will reduce the amount

of concurrent access by increasing the granularity of locks, with minimizing the number of relationships between objects in different domains.

Physically, a domain is a storage structure that contains the relationships between the objects contained in the domain, as well as part of the object directory defining the objects contained in the domain. This storage structure takes the form of a collection of tables. Conceptually, in accordance with the invention there is still a single table corresponding to the stored function, but in the actual implementation, this table is horizontally partitioned, resulting in a set of local tables, each of which is associated with a particular domain. Relationships involving objects contained in different domains are stored in a so-called global domain, which may also contain the objects not otherwise contained in a particular domain. All objects that are not explicitly contained in a physical domain are contained in the global domain, which is a pre-defined system object. (Emphasis added.)

See Annevelink at column 10, lines 21-42.

Annevelink further teaches,

In sum, when used with a database management system..., the [Annevelink] invention allows user application programs to apply operations to sets of logically related objects. The objects that the user application programs apply to operations to are cached on a per domain basis so that the requested tuples are not spread out on a disk. Moreover, by caching the data on a domain basis, the granularity of locks may be most efficiently controlled so as to increase the concurrency of different applications wishing to access common portions of a database. (Emphasis added.)

See Annevelink at column 20, lines 12-24.

Thus, Annevelink actually teaches away from a hierarchy of domains and teaches away from applying an operation to a child domain. More particularly, Annevelink teaches local domains that are partitioned so as to be disjoint datasets. It is one objective of the Avvevlink to minimize the number of relationships between objects in different domains. Annevelink teaches that all objects that are not contained within a physical domain, are contained in a global domain, which is a pre-

defined system object, to contain relations among objects in different domains. Rather than teach a heirarchy of domains, Annevelink teaches disjoint local domains that may be related through a global domain.

The differences between the presently claimed invention and the system disclosed by Annevelink are not surprising since the domains in the present invention, are used to describe structures such as a business or an organization. While domains in the Annevelink system are defined so as to facilitate efficient caching and locking of data moved about within a computer system.

Therefore, applicant respectfully submits that neither Martin nor Annevelink nor any combination thereof teaches or suggests claim 1 as amended.

Applicant respectfully submits that the substance of the arguments set forth above for claim 1 also apply to independent claims 12 and 23, as amended, and to dependent claims 2-11, 13-22 and 24-32, as amended.

Amendment of Claims 8, 10, 12, 16-17, 19, 21, 23, 27, 30 and 32

Independent claims 12 and 23 have been amended to add limitations that generally correspond to the amendment discussed above for claim 1.

Dependent claims 8, 19 and 30 have been amended to provide antecedent basis for the term "category". These claims as amended add limitations similar to those in claims 1, 12 and 23.

Dependent claims 10, 16-17, 21, 27 and 32 have been amended to adopt wording that is consistent with their respective base claims.

Applicant respectfully submits that now new matter has been added through the amendments to claims 1-32.
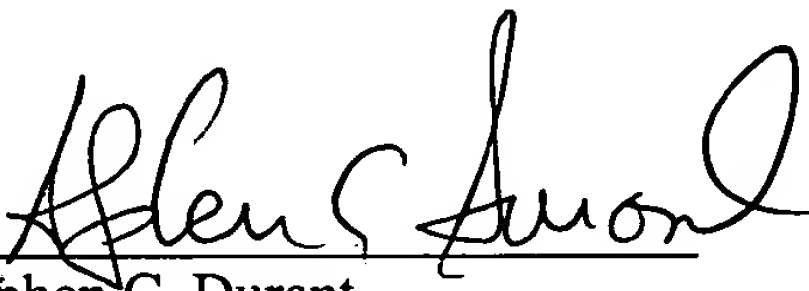
CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 360322000900. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: June 10, 2004   Respectfully submitted,

By _____
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